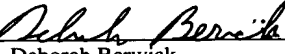


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QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

By


Deborah Berwick

Attorney Docket No. 54-000510US
Client Ref. No. 1002.1 US / AMB0100P

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

J. Christopher Anderson et al.

Application No.: Not Yet Known

Filed: 5 January 2006

For: **COMPOSITIONS OF
ORTHOGONAL GLUTAMYL-TRNA
AND AMINOACYL- TRNA
SYNTHETASE PAIRS AND USES
THEREOF**

Examiner: Unassigned

Art Unit: Unassigned

STATEMENT ACCOMPANYING
SEQUENCE LISTING

Mail Stop Sequence Listing
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The undersigned hereby states that the Sequence Listing submitted concurrently herewith does not include matter which goes beyond the content of the application as filed and that the information recorded on the diskette submitted concurrently herewith is identical to the written Sequence Listing.

Respectfully submitted,



Edward J. DesJardins, Ph.D.
Reg. No. 51,162

5 January 2006
Date

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Alameda, CA 94501
Ph.: (510) 337-7871 / Fax (510) 337-7877

EJD:db

54-000510US.ST25.txt
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Anderson, J C
Schultz, Peter G
Santoro, Stephen

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SYNTHETASE PAIRS AND USES THEREOF

<130> 54-000510PC

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<141> 2004-07-07

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Arg Lys Ala Asn Arg Tyr Phe Phe Ile Trp Gly Pro Val Lys Ile Glu
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Ile Val Asn Leu Pro Glu Lys Lys Glu Val Glu Leu Pro Leu Asn Pro
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His Thr Gly Glu Lys Arg Arg Leu Lys Gly Glu Arg Thr Ile Tyr Val
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Thr Lys Asp Asp Phe Glu Arg Leu Lys Gly Gln Val Val Arg Leu Lys
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Asp Phe Cys Asn Val Leu Leu Asp Glu Lys Ala Glu Phe Met Gly Phe
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Glu Leu Glu Gly Val Lys Lys Gly Lys Asn Ile Ile His Trp Leu Pro
485 490 495

Glu Ser Glu Ala Ile Lys Gly Lys Val Ile Gly Glu Arg Glu Ala Glu
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Gly Leu Val Glu Arg Asn Ala Val Arg Asp Val Gly Lys Val Val Gln
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<213> Aeuropyrum pernix

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Page 15

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 <213> Aeuropyrum pernix

<400> 71

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Asn Phe Ala Val Ser Val Asp Asp His Met Met Glu Ile Thr His Val
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Leu Arg Gly Lys Glu His Gln Leu Asn Thr Glu Lys Gln Leu Ala Val
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Tyr Arg Cys Met Gly Trp Arg Pro Pro Tyr Phe Ile His Phe Gly Arg
 Page 17

290

295

300

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 <213> Methanosarcina mazei

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<213> Methanosarcina mazeii

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 Glu Tyr Val Lys Val Tyr Lys Gly Lys Phe Ile Leu Arg Phe Asp Asp
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 Thr Asp Pro Asp Ile Lys Arg Pro Met Leu Glu Ala Tyr Asp Trp Tyr
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 Met Asp Asp Phe Lys Trp Leu Gly Val Val Pro Asp Gln Val Val Arg
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 Glu Glu Asn Leu Met His Trp Glu Lys Met Leu Ala Gly Glu Tyr Glu
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275

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Arg Tyr Phe Phe Val Trp Asn Pro Val Glu Leu Glu Ile Glu Gly Met
420 425 430

Lys Pro Val Val Ala Lys Val Pro Arg His Pro Thr Asp His Ala Arg
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Gly Met Arg Glu Ile Ser Ile Glu Asn Lys Val Leu Val Cys Ala Glu
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Cys Asn Val Glu Ile Thr Ser Leu Ser Pro Leu Arg Val Lys Arg Ser
485 490 495

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515 520 525

Asp Ile Glu Gly Thr Gly Glu Arg Gly Ile Glu Thr Glu Leu Asp Asn
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Page 21

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550

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 <213> Methanobacterium thermoautotrophicum

<400> 75

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Gln Lys Lys Arg Lys Gly Leu Arg Glu Leu Ala Gly Val Lys Gly Glu
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Val Val Leu Arg Phe Ala Pro Asn Pro Ser Gly Pro Leu His Ile Gly
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His Ala Arg Ala Ala Ile Leu Asn His Glu Tyr Ala Arg Lys Tyr Asp
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Gly Arg Leu Ile Leu Arg Ile Glu Asp Thr Asp Pro Arg Arg Val Asp
 130 135 140

Pro Glu Ala Tyr Asp Met Ile Pro Ala Asp Leu Glu Trp Leu Gly Val
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Glu Trp Asp Glu Thr Val Ile Gln Ser Asp Arg Met Glu Thr Tyr Tyr
 165 170 175

Glu Tyr Thr Glu Lys Leu Ile Glu Arg Gly Gly Ala Tyr Val Cys Thr
 180 185 190

Cys Arg Pro Glu Glu Phe Arg Glu Leu Lys Asn Arg Gly Glu Ala Cys
 195 200 205

His Cys Arg Ser Leu Gly Phe Arg Glu Asn Leu Gln Arg Trp Arg Glu
 210 215 220

Met Phe Glu Met Lys Glu Gly Ser Ala Val Val Arg Val Lys Thr Asp
 225 230 235 240

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 Met Met Asn₂₇₅ Phe Ser Val Ala Val₂₈₀ Asp Asp His Leu Leu₂₈₅ Gly Val Thr
 His Val₂₉₀ Leu Arg Gly Lys Asp₂₉₅ His Leu Ala Asn Arg₃₀₀ Glu Lys Gln Glu
 Tyr₃₀₅ Leu Tyr Arg His Leu₃₁₀ Gly Trp Glu Pro Pro₃₁₅ Glu Phe Ile His Tyr₃₂₀
 Gly Arg Leu Lys Met₃₂₅ Asp Asp Val Ala Leu₃₃₀ Ser Thr Ser Gly Ala₃₃₅ Arg
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 Gly Thr Leu₃₅₅ Arg Ala Ile Ala Arg₃₆₀ Arg Gly Ile Arg Pro₃₆₅ Glu Ala Ile
 Arg Lys₃₇₀ Leu Met Val Glu Ile₃₇₅ Gly Val Lys Ile Ala₃₈₀ Asp Ser Thr Met
 Ser₃₈₅ Trp Lys Lys Ile Tyr₃₉₀ Gly Leu Asn Arg Ser₃₉₅ Ile Leu Glu Glu Glu₄₀₀
 Ala Arg Arg Tyr Phe₄₀₅ Phe Ala Ala Asp Pro₄₁₀ Val Lys Leu Glu Val Val₄₁₅
 Gly Leu Pro Gly₄₂₀ Pro Val Arg Val Glu₄₂₅ Arg Pro Leu His Pro₄₃₀ Asp His
 Pro Glu Ile₄₃₅ Gly Asn Arg Val Leu₄₄₀ Glu Leu Arg Gly Glu₄₄₅ Val Tyr Leu
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Trp Leu Gly Ile Lys Pro Asp Glu Ile Val Tyr Ala Ser Asp Arg Leu
 165 170 175

Glu Ile Tyr Tyr Lys Tyr Ala Glu Glu Leu Ile Lys Met Gly Lys Ala
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 Trp Pro Ala Leu Arg Ile Ile Asp Asn Pro Asn His Pro Arg Thr Gly
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 Asn Lys Tyr Arg Val Trp Pro Leu Tyr Asn Phe Ala Ser Ala Ile Asp
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 Asp His Glu Leu Gly Val Thr His Ile Phe Arg Gly Gln Glu His Ala
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 Glu Asn Glu Thr Arg Gln Arg Tyr Ile Tyr Glu Tyr Phe Gly Trp Glu
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 Tyr Pro Val Thr Ile His His Gly Arg Leu Ser Ile Glu Gly Val Val
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 Gly Trp Asp Asp Pro Arg Leu Gly Thr Ile Arg Ala Leu Arg Arg Arg
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 Arg Lys Leu Val Asp Pro Ile Ala Asn Arg Tyr Phe Phe Val Ala Asp
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 Pro Leu His Pro Asp His Pro Glu Arg Gly Val Arg Arg Leu Lys Phe
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 Thr Pro Glu Arg Pro Val Tyr Val Ser Lys Asp Asp Leu Asn Leu Leu
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 Lys Pro Gly Asn Phe Val Arg Leu Lys Asp Leu Phe Asn Val Glu Ile
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Glu Glu Lys Lys His Glu Glu Lys Arg Lys Val Leu Pro Pro Leu Pro
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Asn Val Lys Gly Gln Val Val Thr Arg Phe Ala Pro Asn Pro Asp Gly
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Ala Lys Met Tyr Asn Gly Lys Phe Ile Leu Arg Phe Asp Asp Thr Asp
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Pro Lys Val Lys Arg Pro Ile Leu Asp Ala Tyr Asp Trp Ile Lys Glu
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Ser Asn Asp Ala Glu Asp Asn Ser Ile Leu Arg Leu Met Glu Leu Cys
465 470 475 480

Asn Val Lys Val Asp Lys His Asn Arg Lys Leu Ile Phe His Ser Lys
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Thr Leu Asp Glu Ala Lys Lys Val Asn Ala Lys Ile Val Gln Trp Val
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